WINNER'S CURSE AND IPO INITIAL PERFORMANCE: NEW EVIDENCE FROM MALAYSIA

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- Abstract -

This study examines the winner's curse hypothesis in a sample of 384 IPOs listed on Bursa Malaysia from 1999 to 2008. We use two alternative measures to test winner's curse; allocation rate ($ALLOCT_j$) measures the probability of getting the allocation while private placement ($D_{PRIVATE}$) measures the institutional investor involvement in the IPOs. The coefficient of both *ALLOCTj* and $D_{PRIVATE}$ are significantly negative consistent with winner's curse hypothesis. Investors are more likely to get (win) most of their subscription if the IPOs are overpriced. Similarly, investors identify the issues that do not involve institutional investors as risky and overpriced. Issuers/underwriters proactively respond by deliberately underpricing the IPOs to allure the uninformed investors into the market.

Keywords: *Winner's curse; Allocation rate; Private Placement; Initial Public Offerings; Malaysian IPO market*

JEL Classification: D53, D82, G02, G11

1. INTRODUCTION

Initial returns of initial public offerings (IPOs) have been accepted as a universal phenomenon and a puzzle that researchers consider finding its explanations a challenge that is too appealing to ignore. Also known as underpricing, the abnormal initial return occurs when the IPO offer price is set much lower than the

price on the first trading day or when the price on the first day of listing increases to a level much higher than the offer price. Among the most cited studies on IPO initial performance is Loughran et al. (1994) which finds that IPO underpricing exists in all 25 countries that are examined. The results of this study substantiate the evidence of underpricing that have been established in earlier studies including by Reilly and Hatfield (1969) and Ibbotson and Jaffe (1975) for the US, Chowdhry and Sherman (1996) for the UK, Dawson (1987) and Yong (1991) for Malaysia, and Finn and Hingham (1988) for Australia to name a few.

Among the widely accepted explanations of IPO abnormal initial performance are the signaling models (Leland & Pyle, 1977), winner's curse hypothesis (Rock 1986), investors' "faddish" behavior (Aggarwal & Rivoli, 1990) and "cascades" in the IPO market (Welch 1992). These explanations are commonly mutually exclusive and rooted to the problem of information asymmetry (Akerlof, 1970). Of main interest to the present study is the winner's curse hypothesis which posits adverse selection problem as the main reason restraining uninformed investors from entering the IPO market. The informed investors are not likely to be trapped or cursed with the overpriced IPOs because with access to more and/or better information, they can distinguish high from low quality investment. To regain the interest of uninformed investors, issuers and underwriters proactively respond by strategically underpricing the new issues. A recent study by Chowdhry and Sherman (1996) on the UK-style IPOs lends a strong support for this proposition. They explain that issuers and underwriters have two motives to underprice the IPOs i.e., to reduce the adverse selection problem and to reduce the probability that the issue fails (undersubscribe) due to the leakage of adverse information. A recent study by Amihud et al. (2003) on Israeli IPOs finds that underpricing is negatively related to IPO allocation. They argue that this evidence is consistent with Rock's (1986) explanation on the adverse selection issue. Uninformed investors win (receive a greater portion of) the IPOs when the new issues are overpriced and lose (receive a smaller portion of) the IPOs when the IPOs are underpriced. This is because underpriced IPOs are more likely to be subscribed by and/or allocated to the informed investors.

In Malaysia, the number of studies on IPO performance is quite impressive (for example Dawson, 1987; Yong, 1991; Jelic et al., 2001; Hiau Abdullah & Mohd, 2004; Abdul Rahim & Yong, 2010). However, studies that focus on winner's curse (Yong, 2011) are still relatively scant. This study attempts to close the gap in the literature by examining the phenomenon of winner's curse during the more recent period that spans from 1999 to 2008 and by offering another measure of winner's curse proposed by Amihud et al. (2003). These are done by employing a

unique data set for IPOs listed on Bursa Malaysia where information on oversubscription ratio of the IPOs and private placement issue are available. Malaysia also offers a great setting for testing the winner's curse hypothesis because as an emerging market, investors in the IPO market are more likely to experience relatively severe asymmetric information problem.

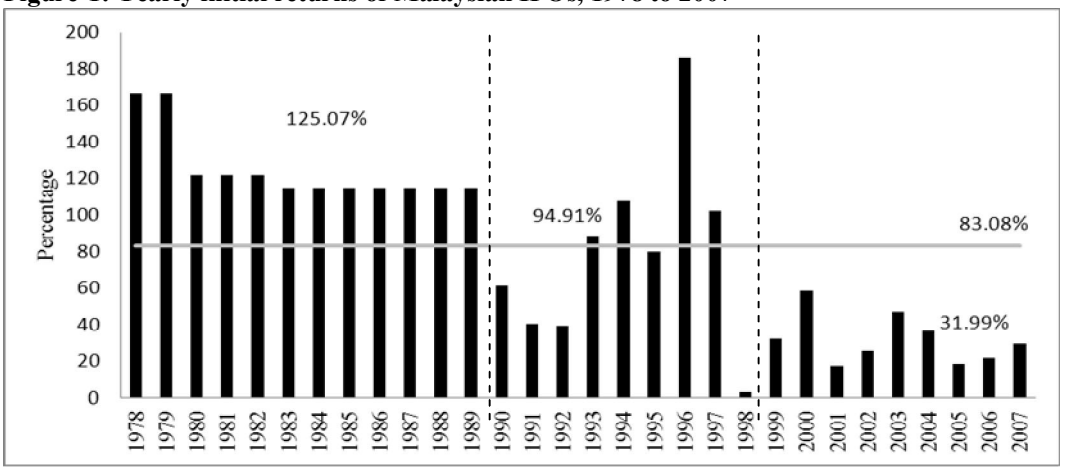
The remainder of the paper is organized as follows. Section 2 presents an overview of the Malaysian IPO market followed by section 3 which discusses the data and research methodology. Section 4 reports and discusses the findings and section 5 concludes and draws implications from the results.

2. MALAYSIAN IPO MARKET

Companies going public in Malaysia can seek for listing on the Main Board, Second Board and MESDAQ (Malaysian Exchange of Securities Dealing and Automated Quotation) of Bursa Malaysia, depending on the paid-up capital. IPOs are offered in two broad classes; private placement is offered to institutional investors while the non-private placement which consists of public issue and offer for sale is offered to individual or retail investors. IPOs are generally sold through a fixed-price offer mechanism, unlike in the US where book-building mechanism mostly practiced. Similar to the UK and many Asian countries (Agarwal et al. 2008), issuers and underwriters of IPOs in Malaysia adopt the UK fair allocation policy where all applications will be allocated randomly and equally. Also, there is no withdrawal option allowed once the allotment decision is publicized unlike the case for Taiwanese IPO markets (Lin et al. 2010).

Studies on Malaysian IPOs is pioneered by Dawson (1987) who finds the average initial returns of 21 new issues from 1978 to 1983 are about 166.7 percent. Figure 1 to illustrate the trend of initial returns over the 31-year period (1978-2007) in Malaysia. The yearly initial returns prior to 1990 are rough estimates, but the declining trend is still clearly observed. The average initial returns during the three sub-periods decline from 125.07 percent (1978-1989) to 94.91 percent (1990–1998) to a mere 31.99 percent (1999–2007). The mid sub-period of 1990-1998 shows large uncertainties in the IPO market whereas after 1999 the initial returns remain consistently below the all-time average of 83.08 percent.

Figure-1: Yearly initial returns of Malaysian IPOs, 1978 to 2007



Notes: Yearly initial returns prior to 1990 are estimated from the weighted average initial returns reported in Dawson (1987) and Loughran et al. (1994). Yearly initial returns for 1990-1998 period are extracted from Yong and Isa (2003) while for 1999-2007 period are from Abdul Rahim and Yong (2010).

3. DATA AND METHODOLOGY

The data set consists of 384 fixed-priced IPOs issued in Malaysia from January 1999 until December 2008 and listed on either the Main Board, Second Board or MESDAQ of Bursa Malaysia (previously known as Kuala Lumpur Stock Exchange or KLSE)**.** On 25 March 2008 the first two boards are merged to form the Main market while the MESDAQ is converted to the ACE market. This study ses 1999 as its starting point to reduce the influence of the 1997/98 Asian financial crisis. This year (3 May 1999) also marks the beginning of the mandatory share moratorium imposed on selected companies on Main Board and all companies on Second Board and MESDAQ. The study covers the period until 2008 when the effect of the 2007/08 US sub-prime crisis is at its foulest. However, the Malaysian stock market is not adversely affected by the crisis, not to the extent of the Asian financial crisis. During the 10-year period covered in this study, there are a total of 426 new issues. The study excludes special purposes and REITS IPOs. The selection criteria leave the study with a final sample of 384 IPOs, of which 134 (35%) involve private placement issue. The data is collected from various sources including the website of Bursa Malaysia and Securities Commission of Malaysia, Datastream and company's prospectus.

Initial return or underpricing of IPOs (*IPORTN*) is measured using the two methods most commonly used in previous studies (for examples, Abdul Rahim & Yong, 2010; Agarwal et al., 2008; Dawson, 1987; Yong, 1991). One is initial return based on the offer to opening price and the other is initial return based on

the offer to closing price on the first day of trading. We focus on the former which is superior because it is least influenced by market noises. The main variable to explain initial returns is the winner's curse which is operationally measured based on the logistic transformation of the allocation rate ($ALLOCT_j$) adopted from Amihud et al. (2003) and alternatively, the institutional investor involvement in private placement issue as proposed by Yong (2011). $D_{PRIVATE}$ is a dummy variable that takes a value of 1 when the IPOs involve private placement and 0 otherwise. In examining the evidence of winner's curse in the initial performance of the IPOs, we take into consideration the influences of eight other variables: growth motive, company's size, age and business risk, ownership of top five shareholders, offer size, underwriter reputation, and market condition. The econometric equations are represented as follows;

$$IPORTN_i = \alpha + \beta_1 ALLOCT_i + \beta_J \sum_{j=1}^{J} CV_{j,i} + \varepsilon_i$$

$$IPORTN_i = \alpha + \beta_1 D_{PRIVATE\,i} + \beta_J \sum_{j=1}^{J} CV_{j,i} + \varepsilon_i$$

where α is the constant term, β is coefficient estimates, $IPORTN_i$ is the initial return of the ith IPO, $ALLOCTj$ is the logistic transformation of allocation rate, $D_{PRIVATE}$ is dummy variable for private placement issue, CV is the controlled variable $j = AGE, \ldots, D_{MKT}$, Age is the age of the company prior to IPO in years, $LnCOSIZE$ is the natural log total assets, LnGROWTH is the natural log of growth purposes/total proceeds, $LnOFFSIZE$ is the natural log of (total units issued x offer price), $D_{UNDEWTR}$ is the dummy variable for underwriter reputation, $LnOWNSHIP$ is the natural log of the top 5 shareholders' ownership, D_{MKT} is dummy variable for market condition, $OPERISK$ is operating risk or standard deviation of the EBITDA over three years period prior to IPO, and ε is the error term.

4. RESULTS AND DISCUSSION

Table 3 summarizes the profile of the IPO companies based on the average values from 1999 to 2008. In general, the offer size of the IPOs suggests that the companies are selling at only 26 percent of the value of their total assets. On average, the companies' total assets worth more than RM200 millions. At a glance, this is a good indication that the IPOs are selling at discount, below the fundamental values. However, given that on average the companies are making only RM20 million operating profits per year, the IPO investors are roughly

paying RM2.97 per ringgit of operating income (P/E = 2.97). With a median of 2 years and mean of 5 years, it seems that most companies that go public are only in business for few years. In addition, only 61.25 percent from the IPO proceeds are allocated for growth purposes. The top five shareholders retain on average 59.21 stakes in the company. More than half of the IPOs are advised by reputable underwriters. Slightly more than one-third of the IPOs involve private placement and are offered during the hot market. The average offer price is RM1.11 which is 28 to 30 percent lower than the prices on the first trading day. This explain the positive initial returns (30.21%-31.65%) which indicate that the performance of IPOs in Malaysia during this period is consistent with findings of recent studies that report high but declining initial returns (Yong & Isa, 2003; Abdul Rahim & Yong, 2010). The oversubscription ratio (OSR) is registered at 31.40 times, implying that the IPO market is still active despite the declining returns. This proxy of demand translates into an allocation rate of around 20 percent of the IPOs applied by subscribers.

Table-3: Profile of the Sample IPOs, 1999 to 2008

Items	Mean	Median	Minimum	Maximum
Offer Price(RM)	1.11	1.00	0.13	4.80
Opening Price (RM)	1.44	1.15	0.17	7.00
Closing Price (RM)	1.42	1.11	0.12	7.50
$IPORTN^{OPEN}$ (%)	31.65	20.00	-68.13	275.00
$IPORTN^{CLOSE}$ (%)	30.21	18.13	-70.70	263.64
Oversubscription Ratio, OSR (times)	31.40	16.50	-0.89	377.96
ALLOC ($0<(1/OSR)\geq 1.0$)	0.21	0.06	0.00	9.09
IPOs with Reputable Underwriter (%)	52.34	100.00	0.00	100.00
IPOs with Private placement	0.35	0.00	0.00	1.00
Hot Market Condition	0.50	0.50	0.00	1.00
Offer Size (RM'000)	56,937	18,315	2,400	3,049,981
Proceeds for Growth (%)	61.25	64.13	0.00	100.00
Total Asset (RM'000)	218,378	86,999	6,401	6,585,143
Average 3-yr EBITDA[b] (RM'000)	19,184	10,533	1,362	578,033
Firm's Age (Year)	4.70	2.00	0.00	39.00
Ownership of Top 5 Shareholders (%)	59.21	60.40	8.95	83.79

Notes: Issues of outliers due to human errors in the data collection process has been taken care-off in the earlier stage and corrected through z-score method.

Table 4 shows results using $ALLOCT_j$ and $D_{PRIVATE}$ alternatively to test for the winner's cure hypothesis. Other than *ALLOCTj* and $D_{PRIVATE}$, offer size, age, and ownership of the top five shareholders are also significant in influencing the level of initial returns. The signs of these significant predictors are consistent with the theoretical intuition. D_{MKT} is insignificant and gives a contradicting sign,

indicating that initial returns are higher when the IPOs are issued in the cold market. GROWTH which represents the growth motive in IPO has the correct positive coefficient, but the effect on initial returns is weak. It suggests that investors are not particularly concern about how the company will be using the proceeds from the IPOs. Similarly, even though insignificant, the negative coefficient on $RISK_{EBITDA}$ suggests that investors are less concern about the company's ability to sustain operating profit, probably because most investors enter the IPO market for short-term rather than long-term motive.

Table-4: Regression results, 1999 to 2008

Variables	Exp. (Sign)	Winner's Curse: *ALLOCTj*		Winner's Curse: $D_{PRIVATE}$	
		Coefficient	t-stats	Coefficient	t-stats
Intercept		116.7600	3.1543***	190.1777	5.3792***
Winner's Curse	-ve	-26.3144	-4.4790***	-12.9733	-2.3483**
GROWTH	+ve	2.9402	0.4150	5.9579	0.8708
$Ln(RISK_{EBITDA})$	+ve	-0.8168	-0.4614	-0.2367	-0.1168
Ln(OFFERSIZE)	-ve	-7.6350	-2.3183**	-7.8120	-2.4748**
Ln(AGE)	+ve	4.5770	2.1189**	4.1041	1.8535*
Ln(TA)	-ve	2.8512	0.7471	-0.4085	-0.1213
OWNER5	-ve	-0.3081	-1.9173*	-0.3320	-1.9215*
D_{WRITER}	-ve	-4.4301	-1.0720	-3.3242	-0.7655
D_{MKT}	+ve	-0.5699	-0.0856	-2.6060	-0.3357
Adjusted R^2		0.1491		0.0595	
F-Statistics		8.4555***		3.6939***	
Probability		0.0000		0.0002	
Durbin-Watson		1.4465		1.3178	

Notes: ***, **, and * indicate significance at 1%, 5%, and 10%, respectively. The autocorrelation and heteroscedasticity detected through Breusch-Godfrey Langrange multiplier test are corrected with Newey-West covariance estimator. VIF range is 1.033 to 4.077.

5. CONCLUSION

This study examines winner's curse hypothesis in 384 Malaysian IPO market issued during 1999-2008 period. Winner's curse is proxied using two alternative measures, $ALLOCT_j$ which is proposed by Amihud et al. (2003) and $D_{PRIVATE}$ by Yong (2011). Overall, the results consistently indicate the presence of winner's curse either in the form of $ALLOCT_j$ or $D_{PRIVATE}$ and lead us to draw the following conclusions. First, the significant negative $ALLOCT_j$ suggests that when an investor receives a high allocation relative to the number of IPOs that he/she subscribes, then he/she has the tendency to end up being cursed for winning overpriced IPOs. This implies that in such cases, the investor may be better off withdrawing than taking the risk of incurring a larger loss. This withdrawal option (Lin et al. 2010) is unfortunately not available for investors of IPOs in Malaysia.

In short, investors must scrutinize all available information pertinent to the IPOs in addition to that provided in the prospectus prior to making decision to place an application or subscription for the IPOs.

Second, the negative coefficient on $D_{PRIVATE}$ suggests that when institutional investors participate in the IPOs, uninformed investors seem to be more willing to pay the high offer price and accept lower initial returns, probably because they are confident about the viability of the IPOs. On the contrary, in the absence of informed investors, the uninformed investors need to be convinced with larger initial returns to make sure that the non-private placement IPOs are fully subscribed. Other than ALLOCT and $D_{PRIVATE}$, investors stand a better chance in IPO market by patronizing IPOs that are smaller and issued by companies with less ownership concentration and longer experience in the business.

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